

3

CONSIDERATIONS

ON THE

PROPRIETY

OF A

PLAN FOR INOCULATING

THE

POOR OF LONDON *Rev. of*

AT

THEIR OWN HABITATIONS:

With a VIEW particularly to the Arguments
urged in Defence of it, by the Author
of a late Anonymous LETTER to Dr.
J. C. LETTSOM.

—jacebant

Corpora, paupertate et morbo dedita morti. LUCRET.

L O N D O N:

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M DCC LXXIX.

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THEIR OWN

With a View particularly to the Arguments
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 of a late Anonymous LIBELLER to Dr.
 J. C. Jackson.

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M. DCC. LXXXI.

CONSIDERATIONS, &c.

IN all contagious disorders where death may be the consequence of receiving infection, it is as much a dictate of common humanity and common prudence to prevent the diffusion of the disease amongst the sound part of the community, as to alleviate the distress of the patient, and to attempt restoring him to health. The welfare of an individual ought to be consulted, but by means consistent with that of the whole. That philanthropy which, in its eagerness to save some lives, overlooks the danger to which it thereby exposes many others, is a false philanthropy, because it counteracts its own intention. If, for instance, in the time in which the plague unhappily occupied so large a share in our Bills of Mortality, it had been discovered, that the only effectual remedy consisted in the exposure of the patient to fresh air, and if in consequence of this discovery, those who were suffering under this terrible malady were carried

about the streets of the metropolis, instead of retiring to unfrequented places in the country, it is easily seen, that, though the patients themselves might be relieved, the community at large would suffer by their mode of obtaining that relief.

This observation will apply to all contagious disorders, in which the sick are surrounded with an atmosphere of noxious vapours, pernicious to those who happen to breathe in it.

Amongst others, it will apply to the Small Pox; with limitation indeed on the one hand, because the disease can be received but once; but with peculiar force on the other, because precautions respecting the communication of it are very much neglected.

The greatest dangers, it is well known, are familiarized by habit; and it is certainly true, that the frequency of the Small Pox, since Inoculation has been so much in vogue, has very much diminished the dread of it. That it is not, however, less fatal, the Bills of Mortality have clearly proved.

A comparison has been made of deaths by the Small Pox, in proportion to the whole number of burials, in 42 years preceding the introduction of Inoculation, with deaths in the same number of years succeeding that introduction; a mode which seems unexceptionable for measuring the success of Inoculation, because, whether the number of inhabitants be more or less in one period than the other, the proportion in so extensive a compass of years between the general mortality, and the particular mortality of this disease, will equally indicate the comparative state of vigour or decline in which it stands.

The result of this comparison is, that the Small Pox has increased very considerably in its fatality during the latter period. But it is said, that this increasing fatality cannot be owing to Inoculation, because, upon examination, it appears to have existed during the former period of years. This is admitted with this addition, that the progress of mortality, during the latter period, has been rather accelerated than interrupted; for Dr. Jurin states the proportion dying in 1000 by the Small Pox for the 20 years, from 1667 to 1686, both inclusive, compared with the proportion dying

dying in the next 22 years, to be as $71\frac{1}{2}$ to 72. But a similar comparison of the same number of years last past, shews the proportion to be as 77 to 105. How can this be accounted for? Supposing the unknown cause of the increase to have subsisted in both periods, how happens it, that the amazing success with which Inoculation has been attended respecting those who were the subjects of it, has not corrected the virulence of the disease, and lessened the number of its victims? This was the consequence that Jurin, and the favourers of Inoculation in his time, expected from it; and this was the mode pointed out by themselves for attaining a knowledge of this consequence. The conclusion which presents itself to a candid inquirer is, that the benefits derived to individuals have been more than balanced by the evils which have arisen from diffusing the contagion. The want of care against spreading so fatal and contagious a disease, has added to it new strength, and enabled it to extend its conquests. The mildness of the inoculated Small Pox has concealed its sting, and too much disarmed the people of their caution. These are natural and obvious suggestions. But they press hard upon a favourite system, which venerates Inoculation

tion almost to a degree of superstition, and will scarcely allow the practice, however conducted, to be tinged with any portion of human fallibility. For this reason, great ingenuity has been exerted to evade them. Sometimes improvements in the air of London, and in the treatment of the sick, have been supposed to alter the former proportion between the whole number dying, and the destruction occasioned by the Small Pox; though the improved method of treating this disease be particularly notorious, and the advantages of air universally allowed. Others suppose a greater supply of new settlers from the country than in former times. But the metropolis of a great nation will always be the crowded mart of business and of pleasure. One writer is of opinion, that the Small Pox is a permanent evil, propagated by contagion, and therefore not affected, like other disorders, by the alterations in London which promote cleanliness, or by any particular constitution of the air^a. Whilst another writer attributes nearly all to an epidemic constitution of air, and supposes very little, if any thing, to depend upon contagion. This last writer, in

^a Monthly Ledger, Vol. I. p. 525.

particular,

particular, thinks that the disease by Inoculation is scarcely infectious, and that there is no danger of extending the natural disease by it, though every precaution be omitted^b: the endeavour to inculcate which idea directs his whole evidence, and pervades his whole treatise. The learned author seems *then* to have judged rightly, that the practice of the Society for inoculating the poor at their own habitations, could be defended upon no other principle. When he was forced from this entrenchment by a close investigation of his testimonies and his arguments, and by a plain appeal to facts, he caught hold of the sum of good and evil; the horns of the altar, by which he hoped to save his system from utter perdition. The controversy which drove him to this sanctuary, it pleases and suits the writer, whose letter I have now under consideration, to call "frivolous." Others, depending upon vague and ill-founded estimates of the increased number of houses in the metropolis, in opposition to calculations fairly deduced from the Bills of Mortality, contend for an increased population. And lastly, the argument respecting the sum of good and evil, which urges, that, granting some evil may be produced by an unguarded

^b Examination of a Charge brought against Inoculation, by Dr. Watkinson.

Inoculation, more good accompanies it, has been echoed and re-echoed from different quarters.

Upon suggestions of this sort, some of which contradict each other, and are neither supported by regular proof, nor by the sum of probabilities, the plan for an indiscriminate Inoculation of the Poor in London at their own habitations has been formed, in which it is boasted, in spite of all precautions and restrictions which have hitherto been thought necessary in contagious disorders, that narrow streets, little courts where children are continually playing, houses where every floor has separate inhabitants, are proper places for giving rise to a disorder, whose identity is at last reluctantly confessed to reside in its contagious quality^a. And this paradox the anonymous writer of a letter to Dr. J. C. Lettsom, avows and maintains.

His first argument is meant to oppose the conclusion drawn from the Bills of Mortality, respecting an increase of deaths in the article of Small Pox, to avoid which he supposes an

^a Letter to Dr. Lettsom, p. 21.

increase of inhabitants in this city, which he thinks may now contain a million; and he is surprized that the Bills indicate no such increase by a greater number of burials, though his inference in favour of Inoculation must depend upon an increased number of inhabitants *without* a proportionate increase of burials. This “disparity between the number of recorded deaths, and the augmented number of people,” he soon after perceives to be a necessary appendage to his argument, and recites several reasons which have been advanced to account for it. Such as a greater degree of salubrity of the air, discoveries in medicine, and the retirement of the opulent, who are ill of chronical diseases, to die in the country. He however, at length, rejects them all, and declares the mystery to be inexplicable; but he still adheres to his opinion of an increased population, which is thus left in the air, like the flying Island of Laputa, without any visible support.

Though he thus miscarries in his researches into the *cause*, it may be expected that he is at least sure of the *effect*; especially when he appears to think the discovery of so much importance, that, to prevent, I suppose, fu-

ture

ture contests for the merit of it, he modestly declines that honour, and attributes it to his correspondent, and to a writer in the Monthly Ledger, under the signature of J. S. The proof of the fact is conveyed in these words: "The Bills for the five years 1701—1705, amounted to 105,453, those for the five years 1710—1714, to 113,277, and those for the five years 1771—1775, only to 110,887; yet that there must have been a very great addition to the numbers of London within the present century, will be allowed by every thinking man, who finds no visible diminution of population with such a prodigious augmentation of building." And he subjoins a remark, that, in the ten years 1734—1743, both inclusive, the burials amounted to a far greater number than before, or since, which is well accounted for by the intemperate use of spirituous liquors during that period, and the consequent unhealthiness of the city. Now, not to insist upon knowing who those thinking men are that are able to make this *visible* comparison between the *present* century, and the *past*, I shall only observe, that he has extracted from

the writer in the Monthly Ledger, to whom he alludes, but a small portion of his reasoning upon the subject. Yet the reasoning which, in his own hands, is so forcible, that no "thinking man" can deny it, in the hands of that other writer, appears to him "not quite conclusive." So what was of little or no value in the hands of another, became transmuted into substantial gold by the touch of Midas.

That writer states his argument with candour and ingenuity^f. He infers from a greater number of burials in the twelve years between 1674 and 1687, than in the twelve years between 1750 and 1763, the first being 252,786, and the latter 251,986, that the Bills of Mortality are not a proper basis whereon to build calculations for ascertaining the number of inhabitants; because it would then follow, that the city was more populous in the first period than in the last; for the falsity of which conclusion, he refers to a map of London published in 1673, in which he observes a great part of Goodman's Fields, a part of Spitalfields, and all to the north of

^f Monthly Ledger, Vol. I. p. 524.

Piccadilly, to be open ground. "Can it be," "rationally supposed," he adds, "that all these additions of building, to the amount perhaps of one fourth of the whole city, have added nothing to the number of inhabitants?" It is certain, that in the large parish of Marybone, which comprehends a very extensive tract of ground to the north of Piccadilly, and in that part of the parish of Pancras which adjoins to London, great additions have been made to the number of the houses of the city; but that they have made none to the number of inhabitants, as calculated from the Bills, is plain, because those parishes are not included in them. That our ancestors were satisfied with much less room than the present race of inhabitants, will be universally admitted; and that they suffered much from the closeness of their situation, together with their neglect of cleanliness, appears from the plague's having so great a share amongst the deaths of the last century.

The
 "The medium of annual burials in the 97 parishes within the walls was,

" From 1655 to 1664—	3264
1680 to 1690—	3139
1730 to 1740—	2316
1758 to 1768—	1620

" This

The projection of the higher stories beyond the lower, in the specimens which yet remain of the antient architecture of this city, is also a confirmation of the inconveniences which our ancestors laboured under for want of room. It should besides be observed, that the calculations formed from the Bills depend not altogether upon the burials, but rather upon the births, as checked and compared with the burials. On the whole, it appears to me, that the Bills, which, though in some respects necessarily defective, are notwithstanding kept with considerable care, establish more

“ This account proves, that though since 1665 London has doubled its inhabitants, yet, *within the walls*, they have decreased; and so rapidly for the last 30 years, as to be now reduced to one half. The like may be observed of the 17 parishes immediately without the walls. Since 1730, these parishes have been decreasing so fast, that the annual burials in them have sunk from 8672 to 5432, and are now lower than they were before the year 1660. In Westminster, on the contrary, and the 23 out parishes in Middlesex and Surry, the annual burials have since 1660 advanced from about 4000 to 16000. These facts prove, that the inhabitants of London are now much less crowded together than they were. It appears, in particular, that *within the walls*, the inhabitants take as much room to live upon, as double their number did formerly.—The very same conclusions may be drawn from an examination of the christenings.”

Observations, &c. by Dr. R. Price, 3d edit. p. 191.

authentic

authentic data for calculating the number of inhabitants, than general reasonings from the visible boundaries of the city. In other points they are allowed their due weight. In estimating the value of life, and of annuities depending on life, they form in a considerable degree the basis of the estimate, and it is an additional proof of their authenticity, that the value of life, as deduced from them, differs from the value of life, as deduced from observations made in other places, as great cities may, from various circumstances, differ in point of healthiness from each other, or from country parishes. This writer draws another argument from a variation in the salubrity of the seasons, of the benefit of which he supposes the Small Pox, as a disease depending upon contagion, does not partake. A plea, which, though I apprehend not valid, admits, by endeavouring to account for the increased proportion of numbers dying by the Small Pox, the authenticity of the Bills. To conclude that London is more populous now than formerly, because with a great augmentation of buildings there is no visible diminution of people, is a conclusion which the premises will not warrant. For, besides that a great part of those additional buildings are

not

not within the Bills of Mortality, the eye is no proper judge of such prodigious numbers as this city contains. A stranger, who had no other method of determining the number, but by a general view, could not possibly have ascertained whether the army of Xerxes contained a million of men, or only 600,000. Such multitudes bewilder the eye, especially when seen at different times and places, as they are promiscuously dispersed throughout an extensive city.

“Admitting, however, that a greater number of Small Pox deaths amongst an equal number of people, has really occurred since than before the introduction of Inoculation,” the Letter-writer wishes to assign other causes for the fatal increase.

These causes are three.

First, He urges, that “the dread of every evil is diminished by habit; that the disease has been so long existent in the metropolis, that it is become familiar to the inhabitants, who are consequently less cautious of avoiding it.”^a It is however, I apprehend,

^a Letter, p. 11.

rather

rather the frequency of the disease of late years that has thus familiarized it, than the small addition which 42 years make to the whole duration of the disease in this country. The familiarity, which is thus destructive of caution, furnishes a strong argument for guarding better against the contagion; and the impropriety of increasing the familiarity, and lessening the caution, is the more manifest.

The second supposition is, that "an increased conflux of fresh people from the country," has poured in upon the metropolis, "whose fears of the Small Pox have been conquered by stronger incitements of pleasure or interest than their ancestors felt." But this extraordinary accession would augment the number of inhabitants, and consequently increase the number of burials, which does not appear from the Bills to be true; and the diffusion of the disease over the country, by the frequent Inoculations which have taken place of late years, must diminish the number of those new comers, who are obnoxious to it, and counteract this supposition.

¹ Letter, p. 13.

The third assigned cause why the increase in question ought not to be attributed to Inoculation, is, that it has existed from the first appearance of it in the Bills^k; in proof of which, this writer brings the absolute number of deaths by the Small Pox in series of ten years each from 1657; forgetting that the absolute number of deaths, which excludes all considerations of variation in the number of inhabitants, cannot give an accurate idea of the decline or increase of the mortality. The continuation of such increase, however, under a milder state of the disorder, and an improved mode of treating it, infers a conclusion, which appears to me to stand in the highest degree of probability, if it does not amount to a demonstration, that it is owing to the increase of contagion, and the neglect of precautions.

Having thus dispelled the doubts which had been started concerning the authenticity of calculations deduced from the Bills of Mortality; and also shewn, that no cause can, with so much probability, be assigned for the continued increase of deaths by the Small Pox, as the diffusion of contagion, it will

^k Letter to Dr. L. p. 13.

be impossible to admit the application of the doctrine which the Letter-writer holds forth, "of preferring a greater certain good to a lesser contingent evil," supposing it to be true, and, as he thinks, not "objected to in other cases¹."

But the unlimited admission of so speculative and obscure a guide to human actions, as the opinion concerning the quantity of good and evil ultimately to result from them, is exceptionable and dangerous. All partial ill may possibly be universal good, but it does not follow that we are to do evil that good may come of it. In the common transactions of life, a man weighs in his own mind the benefits and the inconveniences, the good and the evil, which are likely to ensue, and determines according to the greater apparent good; but this right of determination must not be allowed to interfere with the life, the liberty, the property, or the reputation of others. An oppressed people may derive great advantages from the death of the arbitrary king, or the wicked minister, who oppresses them; but is it therefore lawful to assassinate him? Public benefit may arise from the circulation

¹ Letter, p. 14.

of those treasures, which a miser keeps uselessly hoarded in his chest; but is it therefore right to rob him? The fire of London in 1666 was a great calamity to the unhappy sufferers, though, by making room for improvements in the city, it has been attended with very beneficial consequences; but will these fortunate consequences justify the persons (if there really were any) who set it on fire, even supposing their motives were good, and that they actually intended these consequences?

This last instance seems particularly applicable to the practice of the Society, only with this difference, that in the latter, *life* is concerned, in the former, *property*. Fires, arising from unknown accidents, are frequently breaking out in various parts of the city; to prevent which, they mean to spread a general conflagration throughout the whole, without asking the consent of the inhabitants, in the vain hope of constructing it anew in such manner, as to prevent fires in future.

I hope to receive the Letter-writer's thanks for helping him to this simile, which I conceive, with submission, is more suitable to the institution, than that which he has produced of

of "punishment designed only for the guilty, being sometimes unhappily inflicted on the innocent through the fallibility of human judgment"; in which I own myself at a loss to discover the point of similitude. To act upon the principle in question (the quantity of good and evil) both the one and the other must be seen and compared. In the instance before us of punishing the innocent, who is it that sees, compares, and determines? Not the law; for it acknowledges no such punishment. Not the judge, nor the jury; for if they saw the evil, if they knew the accused to be innocent, or accepted defective evidence, and yet condemned him to die, they would, in the eye of conscience, be guilty of murder. It is the corrupt and perjured witness only that beholds the evil, and commits it for what falsely appears to him a greater good, the gratification of some present passion.

But it may be said, that the Letter-writer alludes to those rare instances, in which, without any corruption of evidence, guilt is imputed to the innocent by an uncommon concurrence of suspicious circumstances. This

^m Letter, p. 14.

very infrequency, however, and the great caution which is used to prevent such an unfortunate decision, destroy all similarity between the practice of the Courts of Justice, and that of this Society. That the advantages of civilization bring with them some necessary evils is true: but it is also true, that the foundation of associating for the purposes of civil society lies in an union of interests, a consent of parties, a mutual compact, of which solid foundation the complaint is, that this institution is totally destitute, and therefore no similitude will hold. A body of men, a society, a state, have no doubt as much right to determine *for themselves* on a deliberate estimate of the probable result of measures as an individual; and in point of moral rectitude, are under the same restrictions with respect to other states or societies. With regard to their own members, they are not justified, according to the principles of natural law, in exposing the life of a citizen, but in cases of necessary defence, or for punishment of crimes^a.

The Letter-writer further observes—

^a Puffendorf de Officio Hom. & Civ. Lib. 2. cap. 13.

“ But

“ But if this position is permitted to operate against the practice in one instance, it must likewise operate against it in another. “ If the Society’s Inoculations are condemned, Baron Dimisdale’s, mentioned in his “ Thoughts, p. 32, 33, as conducted under “ his own direction in the town of Hertford “ in 1770 and 1774, will not stand excused.” If this indeed be true, it militates against the Baron’s practice, whose precautions must then have been, in some degree, ineffectual, but with still greater force against the practice of the Society, who inoculate without any precautions at all.

Let us, however, inquire whether it be a fact.

Baron Dimisdale, in his Thoughts &c. states two modes of public Inoculation, which have been practised in the county of Hertford.

The one, to inoculate as many of the inhabitants of any town or village as could be persuaded to submit to it.—This is the plan of the Society in London.

Letter, p. 15. P. 29.

The

The other, to inoculate, by general agreement of the inhabitants of a town or district, the whole of them together.—This is the plan of General Inoculations in the country, which, for obvious reasons, is impracticable in London.

The Baron adds, that innumerable instances of the contagion being propagated by Inoculation, have occurred in the first partial method; an objection which operates *à fortiori* against practising it in London.

But he has found the latter method practicable and effectual^a.

Can any line of distinction be drawn more clearly?

But the Letter-writer has doubtless his reasons for desiring to confound this evident distinction. He thinks, that the influence of

^a The Letter-writer quotes a passage from the Thoughts, &c. expressive of the advantages experienced from this mode of Inoculation, and asks, "Could the ablest advocate for Inoculation have said a stronger thing in its favour?" As if one, who had practised Inoculation so much, were not an advocate for it, when properly conducted.

a General Inoculation at Hertford must have extended to Ware, because the Inoculated would obey no restrictions, and therefore that there was as much probability of spreading the disease by a General Inoculation of the whole number of inhabitants at Hertford, as by inoculating in London, in narrow streets, in little courts, on ground-floors, where children continue to play before the door during the whole illness. To recite this conclusion is to refute it. The Inoculation of a town or district in the country is a subject of public notoriety. Whoever chuses may easily avoid the danger, and whoever wilfully runs into it must blame his own imprudence. If a man wantonly trespasses on grounds, where notice is given that steel-traps and spring-guns are set, he must abide the consequence of his own rashness; but if these instruments of destruction are placed, without notice, in the public path, they who put them there must be answerable for the event. Restrictions, to which obedience is expected, must be practicable and easy; and if *such* are neglected, the fault lies with those who disobey them, not with him who enjoins them, nor with the practice, abstractedly considered, to which they relate. It would be a doctrine entirely

novel, to charge to the account of the physician the patient's breach of his rules ; or to blame the practice of phlebotomy (for instance) because the impatience of the diseased may have occasioned the operator to wound a tendon. If the plan of Baron Dimisdale were adhered to, I do not apprehend, that the inhabitants at Ware, or the traveller at an inn in Hertford, could have been exposed to hazard by a general Inoculation there. But if any inhabitant of Ware should be imprudent enough to despise the warning, and rush into the danger ; or if any inoculated patient at Hertford should frequent the public inns, or associate with the uninfected at Ware, it is a disorderly conduct for which some remedy may be wished ; but it is no necessary consequence of the practice of General Inoculation, nor does it involve any charge against the physician. The individuals alone must answer for their own rashness or negligence. Adultery is too frequently consequent upon marriage ; but it is by no means the necessary result of that institution, and therefore not marriage, but the guilty parties themselves must bear the blame. The proposed plan for Inoculating the Poor disclaims all notice, and all precautions, and therefore must itself
be

be answerable for the extension of the natural disease occasioned by it, as the necessary inevitable result of the principles on which it is founded.

But the Letter-writer tells us, that "the natural disease is a perpetual resident in London;" and in the space of three or four years makes its progress through every district, however small; that therefore the worst Inoculation can do, is to accelerate its return; but that Inoculation has the double

* In a note, p. 18, and another, p. 33, this writer retorts upon Baron Dimsdale, and inquires, "What care was taken in the two great families, whose servants contracted the Small Pox from inoculated patients under the Baron's own direction? Should those servants have been permitted to remain in their respective infected families?" Now, by taking advantage of errors in transcribing or printing, it may easily be proved, that in p. 17, this author has written false grammar. It is true that a printed list of *errata*, pasted on the first leaf, corrects the error. It was just so in the Baron's Observations &c. The omission of a few lines is thus pointed out in the prefixed *errata*.

"P. 67. l. 3. after inoculated add, Both these had given assurances of having had the Small Pox at the time of being hired, on which account they were continued in the family without suspicion of danger."

* Letter, p. 20.

advantage of anticipating an epidemic constitution of air, and diminishing the quantity of infecting matter.

The diminution of the quantity of infecting matter is admitted, as far as it regards the Inoculated themselves, but no farther. For if Inoculation be justly chargeable with the extension of the natural disease, the quantity of contagion will be thereby increased,

That a quantity of contagion always exists in London, is evident from the weekly fatality; but at what irregular periods it returns in particular districts, it is impossible to ascertain. It is, however, a plain dictate of common sense, that the more extensive the cause is, the more extensive will the effect be; and if Inoculation surely, in the mode proposed by the Society, be allowed, as it now is, capable of propagating the natural disease, the increase of contagion, and of evil produced by it, will inevitably follow. The dreadful consequences, which the Letter-writer enumerates as proceeding from the natural disease^c, furnish therefore a strong argument against the incautious practice which

^c Letter, p. 22.

he defends, however mild, easy, or short, the artificial disease may be.

But Inoculation “anticipates an epidemic “constitution of air.” This epidemic constitution of air, like the wand of a magician, is supposed to be endued with qualities equally wonderful and occult; for, if we may believe the relator, it monopolizes the privilege of spreading the Small Pox, and will not suffer the natural contagion, though of a malignant kind, to operate within its own sphere of action”: an incomprehensible principle of repulsion, which another writer seems desirous to attribute also to Inoculation”. The Letter-writer here deserts his leaders, and expresses himself with more sobriety. He represents an epidemic constitution to mean that state of air, which facilitates the reception and operation of the variolous effluvia. The Small Pox is not a native of this country, nor can it be propagated here without contagion. All that seems intelligible of an epidemic constitution of air, as it relates to this contagious disease, and perhaps even to the

* Examination of a Charge, &c. p. 21. Letter to Sir Robert Barker, p. 9.

plague itself *, is this. The air is an heterogeneous fluid, abounding with an immense variety of particles perpetually exhaling from the whole family of nature, some of which are friendly, and some inimical to health and life. In proportion as the friendly particles abound, the air is in a salutary state, and as the contrary influence prevails (as particularly in great heats and calms succeeding much moisture) it becomes more noxious. In the former state it possesses the power of dissolving and assimilating, to a certain degree, the noxious effluvia arising from diseased persons; but if the quantity of these effluvia exceed the power of the air to dissolve it, that circumstance will reduce the air to the latter state, in which the destructive extent of the disease will be proportionate to the quantity of undissolved contagious particles with which it is loaded. The air of a goal or an hospital, where the diseased are crowded together in a small space, saturated with such a miasma, is a representation in miniature of that distempered state of air, which is called epidemic. Next to this, the close chambers, the confined situations, in which many of the poor reside in London, the narrow alleys, courts, pas-

* See Mead on the Plague,

sages, where the want of circulation renders the air already unwholesome, and perhaps barely fit for the functions of life, will, with the admission of an infectious disease, give another strong idea of an epidemic constitution. Thus the practice of the Society is well calculated to create this epidemic, which indeed this writer acknowledges and defends.

“ These narrow streets and little courts,” says he, “ if they could boast a total exemption from the natural disease, *would doubtless be very improper places for the practice of Inoculation*; but sooner, or later, the natural disease will most assuredly visit them; and the children of their inhabitants, when actually under, or at least when just recovered from it, will as assuredly play with their companions^y; and where, in this case, can be the difference between an epidemic produced by Inoculation in June 1779, and an epidemic produced by natural contagion in June 1780? There is surely no reason to suppose, that the subjects who contract it in one case, would not have contracted it in the other^z.” From all

^y This is, however, a fact more easily supposed than admitted. The natural disease is mostly too severe to permit these juvenile sports.

^z Letter, p. 25.

which it appears, that a promiscuous Inoculation in close confined places, which Dr. Watkinson, and the physician to whom this Letter is addressed, represent to be attended with no danger ^a, may possibly become the very hot-bed of an epidemic, and excite it before its natural period. But though there may be no difference between the mischievous *effects* of the natural and artificial epidemic, can this writer really discern none in the *causes*? If, as is generally admitted, one in six die of those who catch the natural disease, death ^b must be the *certain* consequence of thus artificially extending it; and is there any other distinction between *afflictions* and *crimes*, than that the former are occasioned by the

^a Examination of a Charge, &c. Letter to Sir Robert Barker.

^b This argument cannot, with any propriety, be retorted against the practice of Inoculation, which, when judiciously conducted, and the subjects properly chosen, it will be difficult, I apprehend, to prove to be the cause of certain death to any inoculated person. Another evident line of distinction is, that those who are inoculated, take the disease with their own consent; those who receive it from the inoculated, have no option in the case. This distinction cannot be too often inculcated.—There is no doubt, but that the inoculated Small Pox is less infectious than the natural; but that the one should be caught by “the most instantaneous interview,” the other only by “an approximation of some considerable duration,” is a supposition without proof.

band of nature, the latter by the *band of man*? If there be any earthly power competent to determine that some individuals must, against their consent, be sacrificed to the welfare of the whole, it must surely be that power alone, whose duty it is to superintend that whole, to wit, the legislature or government. Yet Puffendorf is of opinion, that the state itself has no right to deliver up an innocent citizen to certain death, without his own concurrence, to avoid the most imminent danger of ruin to the republic^c. How much more forcibly will this opinion apply to a case, where not the state, but a few individuals, claim this right, and where the innocent victims are many instead of one. Can a practitioner unfeelingly say to a parent, who has lost a child by the natural disease thus anticipated, "If your child had not died now, it *might* have died in the next year?" Or is it probable that the parent would be satisfied with such a reply? D'Alembert, in his *Melanges de Literature* (Amsterdam 1767) attempts to shew, that the advantages of Inoculation are very difficult to be estimated, if it be allowed that death may be the consequence^d. What would

^c De Jure Nat. et Gent. Lib. 8. c. 2.

^d The reader is desired to remember, that nothing
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would he have said to this apology for spreading a fatal contagion, "that if death happened now, it was nothing but an anticipation of the evil, for it must happen at some period or other?" An argument which will equally justify manslaughter, and which, I am persuaded, the Society will not think themselves obliged to the Letter-writer for producing.

This same doctrine respecting the anticipation of evil, is again held forth,* in reply to Baron Dimsdale's objections, "that the Society's practice may endanger the lives of many unhappy persons, who may be in an ill state of health, or unwilling to submit to Inoculation, and yet are unable to avoid the infection," and that it is improper, on account of the miserable situation of the London Poor, "their habitations in close alleys, courts, and lanes, generally cold, dirty, and in great want of necessaries, even bedding itself; of assistance and care with respect to the exhibition of medicine and regulation

which has been said is intended to militate against the practice of Inoculation cautiously conducted, and with consent of parties.

* Lett. p. 29. 30.

" of diet;" and it will terminate in the same
 consequences. The author adds^f, " Those
 " objections (of Baron Dimsdale's just cited)
 " would be valid, did not every one of them
 " militate infinitely less against Inoculation,
 " than against the natural disease, the occur-
 " rence of which that Inoculation is designed
 " to obviate. The mildness of the distemper,
 " in one case, must render all these circum-
 " stances of much less consequence than the
 " severity of it now renders them in the
 " other." He goes on to quote the assistance
 which Baron Dimsdale supposes may be ob-
 tained in the Inoculating Hospital from the
 patients themselves, and subjoins this note:
 " The miserable situation of the London
 " poor, the closeness of their habitations, and
 " every other peculiar of the city that can
 " tend to enhance the malignity of putrid
 " diseases, must operate in favour of Inocu-
 " lation; as all these circumstances must in-
 " crease the fatality of the natural distemper."
 All which proceeds upon the erroneous sup-
 position, that the question relates to the ad-
 vantages derived to the inoculated themselves;
 whereas what is contended for is, that these
 very circumstances must increase the fatality

^f Letter, p. 30.

of the natural distemper, extended as it would thus be by being caught from inoculated subjects.

From the nature of a contagious disease, which can only be received once, it is apparent that the infection must be circumscribed in its extent by some certain limits. This limitation will take place, when all the inhabitants of any city or district have passed through the disease, except children and new settlers; for the old stock of inhabitants being exhausted, the infection must inevitably decline for want of its usual support. In this situation the infection must sink very much below the number of births and settlers, because no other objects remain; and, according to the usual progress of infection, only a proportion of those who are liable to it will be infected in one year. The mortality will be proportionate to the extent of infection, and consequently the Bills will shew a remarkable decline in the article of Small Pox. The height of this article in the Bills, is a manifest proof that London is not at present in this circumstance, but supplies the disease in a considerable part from its old stock of inhabitants. This writer is however of a different

ferent opinion, and concludes, that because, according to his calculation, the total increase of London, by births and ingressors, is equal to the number passing annually through infection, there remains no uninfected stock of inhabitants, and that infection is confined to those births and ingressors; a conclusion which, granting his premises, I have just shewn is impossible to be true, from the present high state of the Small Pox mortality. If however this equality of the infected to the births and ingressors prevails, and should continue to prevail, the Small Pox, in a series of years, will be reduced to the limits before described; that is, whenever the infection shall have so accumulated, as to reach the whole inhabitants, excepting children and settlers. But when it is considered, that infection seizes only *some proportion* of the uninfected, it will appear that it is not probable this utmost extent of infection can ever be attained, unless by the assistance of art. For suppose what proportion you please of those who are liable to it to be annually seized, the series will proceed in an infinite progression, but will never amount to the whole original stock. Even if this supposed state were attained, it would be a mere temporary point; for the number
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of those amongst the births and settlers, who would annually escape infection, must soon accumulate into a large stock of uninfected inhabitants.

Baron Dimsdale's opinion is next cited*, which amounts to this, "that though, in general, greater caution is used amongst the rich, than it is possible to use amongst the poor in London; yet there has been, both amongst rich and poor, a want of sufficient care and attention to prevent the contagion from spreading." It is difficult to perceive wherein the Letter-writer's argument is benefitted by this acknowledgment. If such deficiency has occurred amongst the rich, it will infer the necessity of a greater circumspection amongst *them*; but I believe the acutest reasoner could never discern the propriety of releasing the poor from all care in this respect, because the rich have not been careful enough. He acknowledges that the Baron recommends a more circumspect conduct, and seconds his recommendation in these remarkable words; "Humanity demands our strictest attention in every respect to the health of others. Whenever the Small Pox

* Letter to Dr. L. p. 32. 34.

“*natural* or *artificial*, or indeed any other
 “ dangerous disease of a contagious nature, is
 “ in a family, it should be made known in
 “ the neighbourhood; and if any convenient
 “ method of indicating it to strangers could
 “ be thought of, it might be useful, by pre-
 “ venting an unnecessary, and *often detrimental*
 “ access to such infected places. A bene-
 “ volent and considerate person would not,
 “ in such circumstances, solicit his friends to
 “ visit him, nor would he permit (as far as
 “ prevention was in his power) his children
 “ or servants to visit those of others.”

If examples were not every day before us
 of men depending upon some precarious
 hope, to extricate them from their difficulties,
 when every reasonable reliance was abandoned,
 it would be surprizing that a writer, capable
 of entertaining sentiments so just and so bene-
 volent, should, in dependence upon the dan-
 gerous and fallacious doctrine concerning the
 sum of good and evil, undertake to defend
 a practice, which avowedly defies all pre-
 cautions, defeats the intention of making the
 disease known to the neighbourhood, by giv-
 ing no opportunity of escaping from it, and
 makes

makes every restriction that he advises impracticable, and consequently useless.

Nor do these sentiments better accord with the opinion which he expresses in the next page, that spreading the disease amongst the horned cattle by Inoculation might be justified, because "every man has an undoubted right to do what he will with his own property, till the disposal of it be taken from him by act of parliament." From whence it appears, that he thinks, where there is no act of parliament, there is no transgression. I will not dispute with him concerning the niceties of law; but I must have leave to remember, that there are such rules of conduct as conscience and natural law, "the first principle of which is, that no man should do to another what he would not another should do to him." In this particular case of animals, Puffendorf thus delivers the position of natural law: "When they" (*i. e.* animals) "without any fault of ours, and contrary to the nature of their kind, spontaneously occasion loss to another, the owner shall either make good the loss, or give up the animal^h." If compensation be proper in cases

^h Quando illa (animalia) citra nostram culpam, et contra naturam generis, sponte commota, alteri damnum dederint,

eases where animals spontaneously do mischief without the consent or knowledge of the owner, still more proper will it be when the owner himself is a party in the trespass; and this may be the law of England, as well as of reason and nature, for aught I know.

Baron Dimsdale, it seems, has given it as his opinion¹, that it would be a beneficial law to enjoin “every parish, *with the exception of such large places as should be thought too populous to be included*, to offer Inoculation to all their poor, who should be willing to admit of it.” And he subjoins a reference to another part of the same publication, in which “collecting all the patients together in one house” is recommended. The Letter-writer, omitting the reference, affects to be surprized at this, considering Baron Dimsdale’s insuperable aversion to Inoculation without general consent. But inoculating all the poor of a parish, who chuse to submit to it, *in a separate house*, is the very mode of General Inoculation, which the Baron was contending for.

dederint, Dominus vel damnum farciat, vel animal dedat. De Officio Hominis et Civis. Lib. 1. cap. 6.

¹ Thoughts, &c. p. 65.

There is an original and fundamental error in the constitution of this Society, which cannot be extirpated by any alteration which they may have lately adopted, of offering medals to practitioners in medicine for inoculating the poor; for it makes no difference to the public, whether the physicians to the Society, or apothecaries to whom they give medals, are the instruments by which the natural Small Pox and its consequences are extended.

The compliments which the Letter-writer is pleased to pay to his correspondent, the consulting physician to the institution, and the insinuations with which he has attempted to asperse the character of Baron Dimsdale, are equally foreign to the argument, and prove only that he had some other object in view than the simple investigation of truth. From the general tenor of his conduct and writings the world will form its estimate of that gentleman's character, which neither needs the feeble support of officious applause, nor is affected by the futile attacks of illiberal censure. The honours with which this writer has covered his friend will, doubtless, at a proper season, be acknowledged in an agree-

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able reciprocation of civility ; and the resentment which he indulges against the Baron, however unjust, may yet be natural. A man, who is awakened from amusing dreams of discovered treasures or systems, is naturally enough displeased with the interruption, and may exclaim with him in Horace ;

“ Pol me occidistis, amici.”

I have now gone through the whole of this writer's argument, and I trust it will appear to the reader, that although Inoculation be a discovery, which under careful management may tend greatly to the public benefit, the neglect of precautions has already been attended with the unhappy effect of spreading the natural distemper ; an effect which will in all probability be increased by this proposed method of inoculating the poor at their own crowded habitations, without the consent, or even the knowledge of the neighbourhood ; and consequently, that such a mode of inoculating cannot be justified, either in a political or moral point of view.

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